REMARKS

This application has been amended in a manner that is believed to place it in condition for allowance at the time of the next Official Action.

Claims 1 and 3-6 are pending in the present application. Claim 1 has been amended to incorporate the recitations of claim 2. Claim 3 has been rewritten as an independent claim. In addition, claim 3 has been amended to address the formal matter raised in the outstanding Official Action.

In the outstanding Official Action, claim 4 was rejected under 35 USC §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants believe the present amendment obviates this rejection.

In imposing the rejection, the Official Action alleged that the phrase "wherein a content ratio of said... diketone/benzotriazole-based compound...is not less than 0.5 but not greater than 50" was indefinite. As claim 4 is directed to the pH value of the claimed slurry and does not recite this phrase, applicants respectfully submit that the Patent Office meant to refer to claim 3.

In any event, as to claim 3, claim 3 has been amended to indicate that the ratio is based on a content weight ratio

which equals the part by weight of diketone/parts by weight of benzotriazole-based compound. Support for the amendment to claim 3 may be found in the present specification at page 11, lines 14-25.

In view of the above, applicants believe that the claimed invention is definite to one of ordinary skill in the art.

In the outstanding Official Action, claims 1-5 were rejected under 35 USC §103(a) as allegedly being unpatentable over SMALL et al. in view of MAHULIKAR. Applicants believe the present amendment obviates this rejection.

As noted above, claim 1 has been amended to incorporate the recitations of claim 2. Claims 4 and 5 are dependent on claim 1. Claim 2 recited that the diketone in the claimed slurry was at least one type of a compound selected from the group consisting of 1, 2-diketones, 1, 3-diketones, and 1, 4-diketones.

While applicants understand that SMALL et al. state that chelating agents such as alkyl beta-diketones may be added to a slurry composition (column 8, lines 36-38), applicants note that SMALL et al. fail to disclose or suggest that the claimed diketones set forth in amended claim 1 may be added to a slurry for chemical mechanical polishing.

Applicants believe that this also stands true for the MAHULIKAR publication. While MAHULIKAR discloses that chelating agents may be added to a chemical mechanical polishing slurry

system, MAHULIKAR fails to disclose or suggest that the claimed diketones in amended claim 1 may be added to such a slurry composition.

Thus, applicants believe that the proposed combination of references fails to render obvious the claimed invention.

Indeed, applicants note that the claimed slurry exhibits unexpected results. At this time, the Examiner's attention is respectfully directed to Table 1 in the present specification at page 20. Table 1 reports the results of a comparative study contrasting the polishing rate for copper obtained with a slurry containing both a benzotriazole-based compound and a diketone as opposed to other combinations. Applicants believe that Table 1 indicates that slurries containing both a benzotriazole-based compound and a diketone can reduce the polishing rate for copper far more than any other types of slurries.

As a result, applicants believe that the present specification demonstrates that the claimed combination of a benzotriazole-based compound and a diketone in a slurry for chemical mechanical polishing exhibits unexpected results.

At this time, the Examiner is reminded that a critical step in analyzing obviousness pursuant to 35 USC §103(a) is casting the mind back to the time of the invention, to consider the thinking of one of ordinary skill in the art, only guided by the publications and then-accepted wisdom in the field. Close

adherence to this methodology is important in cases where the invention itself may prompt an Examiner to "fall victim to the insidious effect of a hindsight syndrome, wherein that which only the invention taught is used against its teacher." Indeed, to establish a prima facie case of obviousness, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. *In re Kotzab,* 217 F.3d 1365, 1369-70, 55 USPQ 2d 1313, 1362 (Fed. Circ. 2000). The fact that the prior art could be so modified would not have made the modification itself obvious unless the cited publications themselves suggested the desirability of the modification. *In re Gordon,* 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Circ. 1984).

In light of the lack of a motivation, suggestion or teaching of the desirability of making the claimed combination, applicant believes that the publications fail to disclose or suggest the claimed invention.

The Examiner's attention is also respectfully directed to amended claim 3 which recites that the ratio of the diketone to the benzotriazole-based compound is not less than 0.5 but not greater than 50 wt %.

While the Official Action contends on page 4 that it has been held that there is no invention where the difference in proportions is not critical and was ascertained by routine experimentation because the determination of workable ranges is

not considered inventive (see *In re Swain and Adams,* 70 USPQ 412 CCPA 1946), applicants note that more recent case law has held that a particular parameter or variable must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the parameter or variable might be characterized as routine or obvious. *In re Antonie,* 559 F.2d 618, 195 USPQ 6 (CCPA 1977). See also *In re Boesch,* 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Upon reviewing SMALL et al. and MAHULIKAR, applicants believe that neither of the publications disclose or suggest the claimed ratio. As the cited publications fail to recognize the claimed recitation as a parameter that may be optimized, applicants believe that it is improper to characterize the claimed ratio as simply a result-effective variable. Thus, applicants believe that the proposed combination of references also fails to disclose or suggest claim 3.

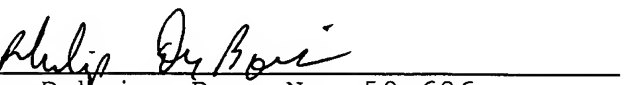
In view of the above, applicants believe that the present application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON



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